[CLAIMS]

[Claim 1] A cartilage therapeutic composition comprising a mixture of components of chondrocytes isolated and expanded or differentiated from a host, and thrombin and a fibrinogen matrix containing fibrinogen.

[Claim 2] The composition as set forth in claim 1, wherein the cell components are prepared by separating cells from a normal cartilage tissue isolated from the host using an enzyme, and incubating cells in a culture medium to obtain a culture containing more than 10^6 cells/mL.

[Claim 3] The composition as set forth in claim 1, wherein the thrombin is used in the amount of 0.01 to 50 IU/mL.

[Claim 4] The composition as set forth in claim 1, wherein the fibrinogen matrix contains 20 mg/mL to 200 mg/mL of fibrinogen.

[Claim 5] The composition as set forth in claim 1 or 4, wherein the fibrinogen matrix contains at least one selected from antibiotics such as penicillin G and streptomycin and antifungal agents such as kanamycin, amphotericin B, nystatin and gentamycin.

[Claim 6] The composition as set forth in claim 1 or 4, wherein the fibrinogen matrix contains at least one selected from 0.01 mg/mL to 20 mg/mL of collagen, 0.1 mg/mL to 20 mg/mL of hyaluronic acid and 0.1 mg/mL to 20 mg/mL of glycosaminoglycan (GAG), and 1 to 3000 KIU/mL of aprotinin.

[Claim 7] A method of using a cartilage therapeutic composition of Claim 1,

comprising:

preparing components of chondrocytes isolated and expanded or differentiated from a host cartilage;

preparing thrombin;

preparing a fibrinogen matrix;

treating a cartilage defect region; and

injecting a cartilage therapeutic composition containing a mixture of chondrocyte components, thrombin and a fibrinogen matrix into the cartilage defect region.

[Claim 8] The method as set forth in claim 7, wherein treating the cartilage defect region includes forming a plurality of connection holes having a predetermined diameter and depth, integrated with the cartilage defect region at the cartilage defect region.

[Claim 9] The method as set forth in claim 7 or 8, wherein mixing and injecting chondrocyte components, thrombin and fibrinogen further includes spraying 100 IU/mL to 1000 IU/mL of a thrombin solution to the cartilage defect region including connection holes, before and after injection of the mixture.

[Claim 10] The method as set forth in claim 7, wherein the fibrinogen matrix further contains at least one selected from 0.01 mg/mL to 20 mg/mL of collagen, 0.1 mg/mL to 20 mg/mL of hyaluronic acid and 0.1 mg/mL to 20 mg/mL of glycosaminoglycan (GAG), and 1 to 3000 KIU/mL of aprotinin component.

[Claim 11] A method of using a cartilage therapeutic composition of Claim 1, comprising:

preparing components of chondrocytes isolated and expanded or differentiated from a host cartilage;

preparing thrombin;

preparing a fibrinogen matrix;

treating a cartilage defect region;

collecting a periosteum;

suturing the periosteum to the cartilage defect region; and

injecting a cartilage therapeutic composition containing a mixture of chondrocyte components, thrombin and a fibrinogen matrix into the cartilage defect region inside of the periosteum.

[Claim 12] The method as set forth in claim 11, wherein the fibrinogen matrix further contains at least one selected from 0.01 mg/mL to 20 mg/mL of collagen, 0.1 mg/mL to 20 mg/mL of hyaluronic acid and 0.1 mg/mL to 20 mg/mL of glycosaminoglycan (GAG), and 1 to 3000 KIU/mL of aprotinin component.